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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,309	09/05/2003	Robert St-Amour	40128/00701	8193

7590 02/14/2006

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EXAMINER	
GABOR, OTILIA	

ART UNIT	PAPER NUMBER
2884	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/656,309	ST-AMOUR ET AL.
	Examiner	Art Unit
	Otilia Gabor	2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2003 and 16 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-49* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-49* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. The amendment filed 12/16/2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Descales et al. (U. S. Patent 6,070,128).

Regarding claims 1, 3-5, 6, 8, 15, 21, 23, 25, 26, 27, 28, 30, 35, 41-47 Descales discloses an apparatus and method for evaluating a sample material and predicting certain properties of the sample material using FT-NIR analysis. The apparatus comprises means (spectrometer) to generate a set of spectral data from the sample and

means to analyze (computer processor) the set of spectral data, which means also includes a set of data that is indicative of features of the sample that is relevant to determine or predict such a property and how that property will change the overall process in which the material sample is used. In operation, the infrared spectrometer is linked to a computer programmed so that the property or yield can be determined continuously in real time. The spectrometer is suitable for measuring spectra in the 600-2600 nm range, which mostly corresponds to the NIR range of the IR range. The prediction of the yield of the determined property is done by comparing the detected spectral data to the previously recorded set of spectral data and/or mathematical algorithm indicative of a certain property and yield. The spectral data is generated by irradiating the sample with radiation in the specific range, having a specific frequency (NIR range that has frequency in the 12800-4000 cm^{-1} range) and detecting the absorbed radiation using a detector, which is part of the spectrometer.

Descales fails to specifically disclose that the sample is a printing medium sample which is used in a printing process and which includes a printing ink or a dye, however since he discloses that his method can be utilized in a variety of sample materials used in a variety of processes where the property and yield needs to be determined in order to predict how this property will affect the process, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the process of Descales with a sample that is used in the printing process.

Regarding claims 2, 16, 22, 24 Descales discloses that the computer is linked to the spectrometer and it is programmed to control what happens to the sample based on the measured property and yield (see Col.17, line 50-Col.19, line 28).

Regarding claims 7, 17, 29, 36 Descales discloses that the spectral data set is determined based on the sample's response to different and complimentary irradiations in the IR and NIR wavelength range (see Tables), where through this irradiation with multiple wavelengths the sample is tested for different mechanical, physical and functional properties (see Col.19, lines 28-47) by comparing the reference with the measured spectra.

Regarding claims 9-11 Descales discloses that the spectral data sets are generated by first generating light having a predetermined frequency characteristics; irradiating the sample with this light; absorbing light in the sample; detecting the light not absorbed in the sample; collecting the radiation response over time; converting the radiation response to an analog response; converting the analog to a digital response; supplying this digital response to a computer; and mathematically converting the response into a spectral response (i.e., FTIR processing).

Regarding claims 18-20, 36-40 Descales discloses sets of spectral responses generated at different wavelengths and their deviations from the reference spectral sets whereby only data that fits in the determined (calculated) tolerance range will be further processed and used to correlate the physical, mechanical and functional properties of the sample (see Tables).

Regarding claims 12, 13, 32, 33 Descales detects the characteristic properties of the sample based on the absorption data, and thus fails to specifically disclose that the obtained spectral data is compared to a reflected or scattered reference spectral data, however such comparison is within the skill of one in the ordinary skill in the art since it is well known that when absorption is to be determined the radiation that is not absorbed is the one that is detected and such a radiation is one that is reflected or scattered by the sample. Also, in order that reflected and/or scattered radiation is detected the detector has to be positioned at an angle relative to the sample, for otherwise none of the reflected or scattered radiation can be detected.

Regarding claims 14, 34 Descales fails to specifically disclose that the sample is in a gas-tight enclosure, however since it discloses that real time on-line measurement is being done on samples some of which inherently contain volatile components (fuels in diesel engines), it would have been obvious to have these components in a gas-tight enclosure to secure the safety in the measuring environment.

Regarding claim 31 Descales fails to disclose a portable unit for remote probing of the sample, however it would have been obvious to one having ordinary skill in the art at the time the invention was made to include such a feature so that volatile hazardous samples can be safely monitored.

Regarding claims 48-49 Descales discloses identifying deviations between the currently measured and the reference spectral data, through which deviations the mechanical and physical properties of the sample are determined and how these properties will affect the process in which the material sample is being used.

Response to Arguments

5. Applicant's arguments filed 12/16/2005 have been fully considered but they are not persuasive. The main argument presented by the Applicant is that Descales does not discloses a method of determining the whole printing media. However, this argument is not persuasive since Descales discloses determining and analyzing the spectral data obtained from a sample material which material will be used in a particular process, without limiting what this material sample is. This means that if the sample contains a mixture of different materials, the spectral data of all materials present in the sample will be evaluated. This process is similar to the one disclosed in the present invention, where the spectral data of the sample material is being evaluated the only difference being that the sample material is used in the printing process. Also, just as in the present invention, Descales is evaluating the sample material to determine whether its characteristics are appropriate to be used in a particular process. Overall, the only difference between the current and Descales evaluation method is the type of material that is being evaluated. Since Descales does not limit its method to a particular material mixture, it is obvious that it can be applied to evaluate a material sample that is used in the printing process. As such, the claims still stand rejected as shown in detail above.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 571-272-2435. The examiner can normally be reached on Monday-Friday between 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Otilia Gabor
Primary Examiner
Art Unit 2884

OTILIA GABOR
PRIMARY EXAMINER